MARPOSS

# CAM PROFILE

## AUTOMATIC GAUGING SYSTEM

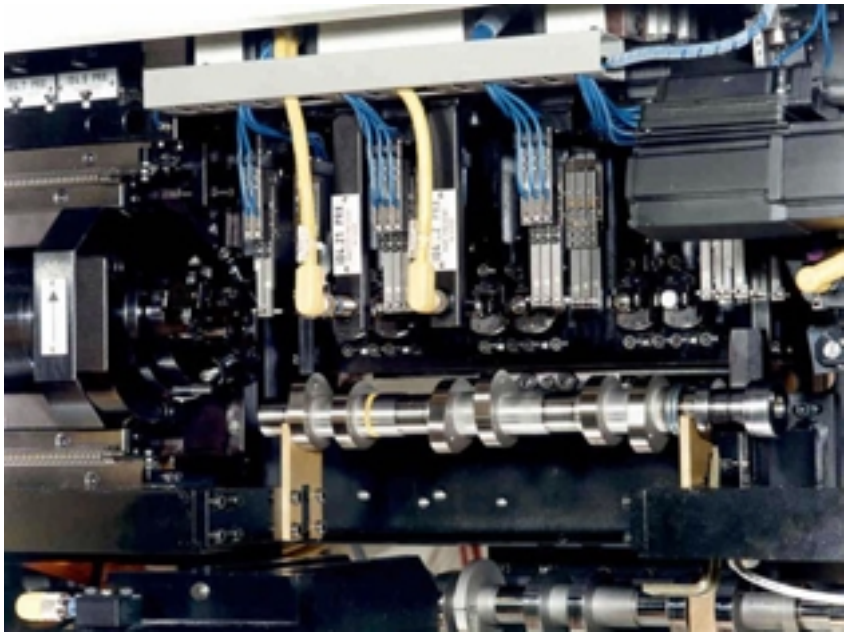
### RELIABLE, PRECISE, FAST

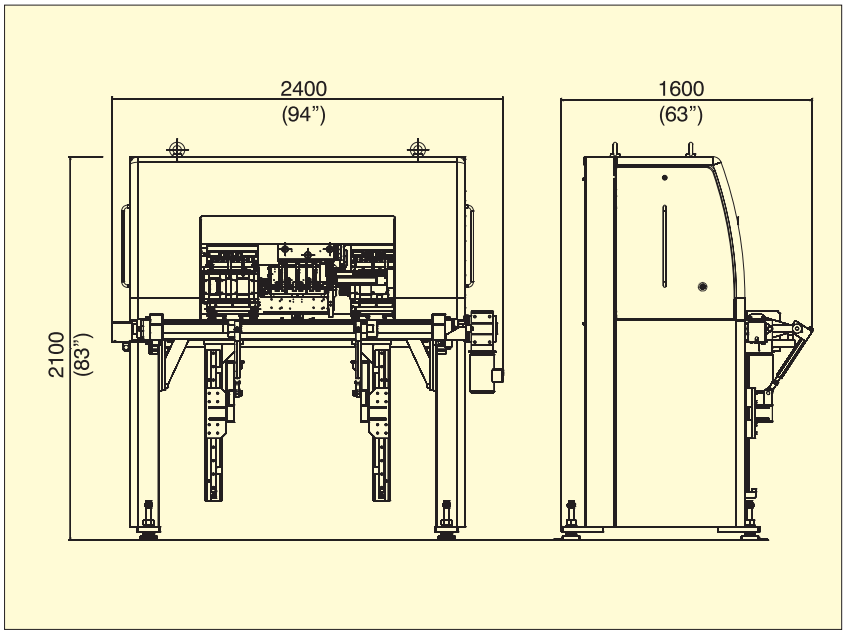
Rugged enough to be used in a workshop environment.
Can be integrated into production lines for inter-operational and final inspection.
Reliable and accurate, designed and built using the most advanced engineering methods.
Due to a combination of multiprocessor electronics provided with dedicated algorithms, repeatability and accuracy are guaranteed comparable to those obtained in Metrological Laboratory.
Capable of maintaining reduced cycle times and quality control of an entire production run.

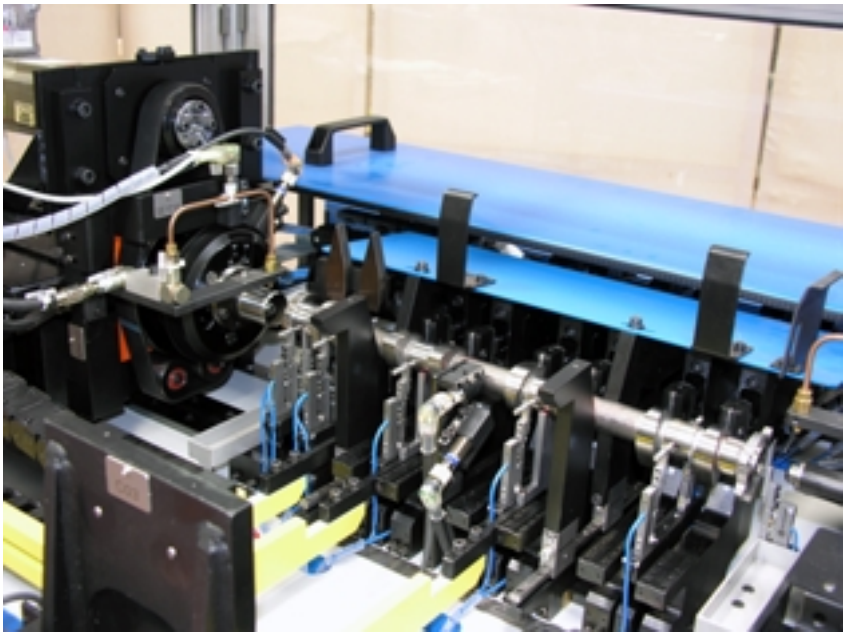
# M110 Profile

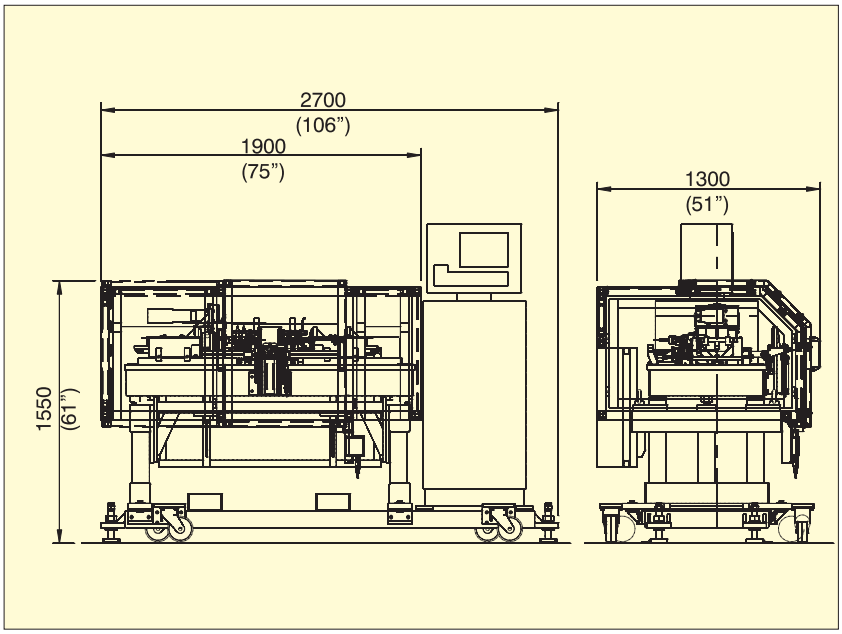
## Measuring station

Machine is provided with a "feet-to-floor" structure and can straddle an automatic conveyor.
Provided with a linear elevator to pick components up from existing or Marposs provided automation.
Parts are positioned between the centers of the measuring station.
Automatic mastering feature is provided.
Masters for calibration and gauge station set-up are housed in the back of the machine in a protected area.
Measuring station can be automatically retoolable for a family of parts.
Optional functions include part marking and part segregation.










## M57 Profile

### Measuring station

Station is provided with a "feet-to-floor" structure.
Part loading can be manual or by an automated gantry.
Mastering can be performed manually or automatically assisted by a gantry.
Measuring station can be manually retoolable for a family of parts.
Guarding shown in the photograph are not needed when safety is guaranteed by perimeter fencing.

## Measuring stations

Both solutions envisage the integration of the Marposs measuring cells with linear and angular encoders, for the inspection of geometric and dimensional parameters on camshafts.
Parts can be referred by centers or by a 3-jaw chuck, depending on the machining process.
Typical measurements performed on Cam Lobes include:

- Radius, T.I.R. and Concentricity of the Base Circle
- Profile, Velocity and Acceleration of Ramp and Nose
- Angular Phase and Taper

Typical measurements performed on Main Journals include:

- Diameter, Roundness, Taper, Straightness, Concentricity, T.I.R.

Chatter evaluations can be performed on both Cam Lobes and Main Journals.

## Display characteristics

The measuring station is supplied with a Marposs E9066™ industrial PC, running Quick SPC™ software that displays measurement and statistical results, and allows application control system programming.
Quick SPC™ software permits definition of shape, position and dimensional cam profile data, along with linear and polar diagrams.
Its integrated statistical package supports on-line variable data analysis (control charts; machine, gauge and process capability).
Quick SPC™ software also allows seamless integration to virtually any network client and database architecture, including industrial networks (Profibus, Interbus-S, etc.).

| STANDARD OVERALL DIMENSIONS | | | | |
|---|---|---|---|---|
| | *Length* | *Width* | *Height* | *Weight** |
| **M110 PROFILE** | 1600 mm ( 63" ) | 2400 mm ( 94" ) | 2100 mm ( 83" ) | 14000 N ( 3100 lbf ) |
| **M57 PROFILE** | 2700 mm ( 106" ) | 1300 mm ( 51" ) | 1550 mm ( 61" ) | 17000 N ( 3800 lbf ) |

** Electrical cabinet excluded*

| PART DATA | | | | |
|---|---|---|---|---|
| *Minimum Part length* | *Maximum Part length* | *No.of lobes* | *Minimum Ø of Main Journals* | *Maximum Ø of Main Journals* |
| 300 mm ( 11.8" ) | 600 mm ( 23.6" ) | from 1 to 15 | 20 mm ( .8" ) | 50 mm ( 2" ) |